

## CLAIMS (26800)

What is claimed is:

1. A method of forming a polymer on a surface with gaps, comprising the steps of:
  - (a) activating precursors with a pulsed plasma; and
  - (b) polymerizing said precursors on a surface with gaps to form a polymer layer; said gaps having an aspect ratio of at least about 1 to 1 and said polymer layer filling said gaps without voids.
2. A method of forming a polymer on a surface with gaps, comprising the steps of:
  - (a) activating precursors with a pulsed plasma; and
  - (b) polymerizing said precursors on a surface with gaps to form a polymer layer, said gaps with aspect ratios of at least 1 to 1, and said polymer layer filling said gaps except with voids about the centers of said gaps.
3. A dielectric gap filling structure, comprising:
  - (a) a layer of fluorocarbon polymer on a surface with gaps, said gaps with aspect ratios of at least 1 to 1 and of width at most 0.3  $\mu\text{m}$ , and said polymer filling said gaps.